

# **NOXIOUS WEED CONTROL PLAN**

**I-70/SH58 INTERCHANGE  
JEFFERSON COUNTY, COLORADO**

**CDOT Project No. NH 0703-246**

Prepared for:

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## **1.0 INTRODUCTION**

This Noxious Weed Control Plan for the proposed roadway improvements to Interstate 70 (I-70) at State Highway 58 (SH58) follows the guidelines of the Federal Highway Administration (FHWA) Guidance on Invasive Species and Executive Order 13112 (FHWA, 1999).

### **1.1 PROJECT BRIEF**

The Colorado Department of Transportation (CDOT) proposes to construct improvements to the I-70/SH58 interchange in Wheat Ridge and Jefferson County, Colorado. The plans include construction of a flyover from eastbound I-70 to westbound SH58 and a new ramp between eastbound SH58 and westbound I-70. Currently, there is no access from eastbound I-70 to SH58 to westbound I-70. Both of the proposed new features would cross Clear Creek and environmentally valuable riparian habitat. The study area is located in Sections 19 and 20 T3S R69W (Figure 1).

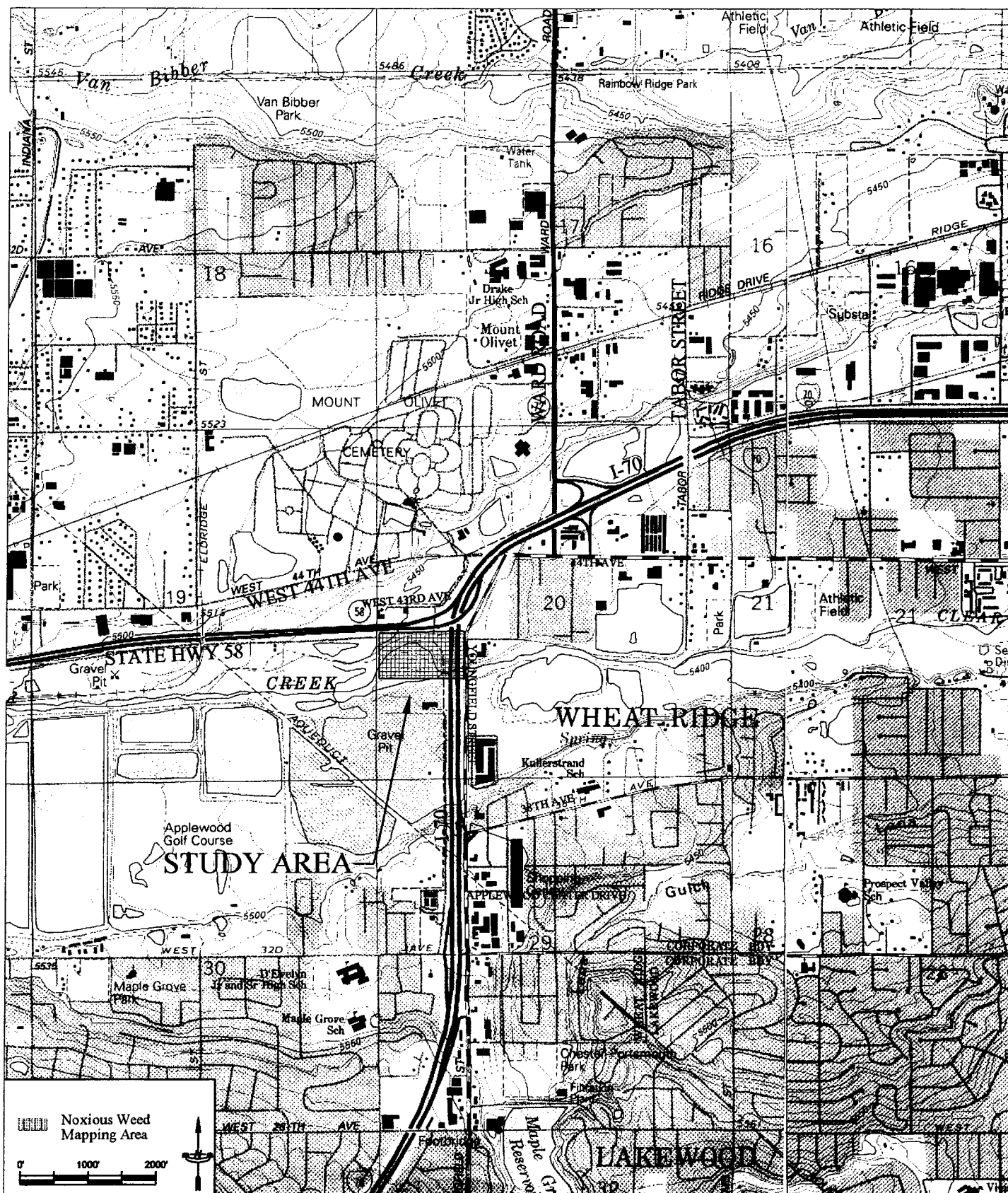
### **1.2 PURPOSE**

Passage of the 1990 Colorado Noxious Weed Act (Act), Colorado Revised Statute Title 35 Article 5.5 (CRS 35-5.5-101) by the Colorado legislature places all public and private lands in Colorado under the jurisdiction of local governments to manage noxious weeds in any area of the state (DPI, 2002). According to the Act noxious weeds threaten the continued economic and environmental value of agricultural lands, native plant communities, wildlife habitat, and property values throughout the state.

### **1.3 BACKGROUND**

The Act defines noxious weeds as “an alien plant or parts of an alien plant that have been designated by rule as being noxious or have been declared a noxious weed by a local advisory board, and meets one of the following criteria;

Aggressively invades or is detrimental to economic crops or native plant communities;  
Is poisonous to livestock;  
Is a carrier of detrimental insects, diseases, or parasites; or  
The direct or indirect effect of the presence of this plant is detrimental to the environmentally sound management of natural or agricultural ecosystems.”



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Scale: 1"=2000'

## SH 58 / I-70 INTERCHANGE Study Area

## FIGURE 1

Source:  
Golden & Arvada, CO USGS 7.5  
Quad. 1994  
T3S, R69W

This Noxious Weed Control Plan (NWCP) for I-70 at SH58 in Jefferson County, Colorado implements the mandates of CRS 35-5.5-101 and identifies and maps the noxious weeds and weeds of concern for the state of Colorado and the local weeds of concern for Jefferson County within the interchange project limits. The NWCP also establishes a strategy to be employed by CDOT for the eradication, control, and prevention of noxious weeds during construction of the new interchange. The plan allows for integrated weed management via cultural, mechanical, and as necessary chemical or biological methods.

## 2.0 NOXIOUS WEED MANAGEMENT CRITERIA

### 2.1 EXISTING VEGETATION AND HABITAT

The existing vegetation in the study area was surveyed for the state listed noxious weeds and listed weeds of concern for Colorado (see list in Appendix A) and the local weeds of concern listed for Jefferson County (Jeffco) (see list in Appendix B). Survey dates were in early spring on March 29, and April 1 and 2, 2002. On April 4, 2002, individual species or clusters of species were mapped using a Trimble ProXRS Global Positioning System (GPS) receiver for sub-meter accuracy. Data were then processed with the GPS Pathfinder Office 2.80 program and exported into AutoCAD 2000.

Existing vegetation or native habitat within the study area is environmentally valuable and consists of:

- riparian forest and shrublands;
- wetlands; and
- pockets of mid- and short-grass prairie (CNAP, 1998).


Riparian forests and shrublands line the banks of Clear Creek and unlined portions of the irrigation ditch that runs west-east through the study area south of SH58. Riparian forests are dominated by Plains cottonwood trees (*Populus deltoides*) and riparian shrublands are dominated by thickets of coyote willow (*Salix exigua*). Wetlands consist of a mix of various persistent emergent species common to the region. Representative species include reed canarygrass (*Phalaris arundinacea*), Nebraska sedge (*Carex nebrascensis*), various rushes (*Juncus* sp.) and cattails (*Typha latifolia*). Remnant native upland vegetation is dominated by short-grass prairie species of Foothills Grasslands (CNAP, 1998). Common species include three-awn grass (*Aristida* sp.), sand dropseed (*Sporobolus cryptandrus*), and shrubs including rabbitbrush (*Chrysothamnus nauseosus*), poison ivy (*Toxicodendron radicans*) and pricklypear cactus (*Opuntia polyacantha*).


Other areas located along the highway right-of-ways of SH58, I-70 and the Youngfield Street right-of-way are disturbed and dominated largely by grasses, typically smooth brome (*Bromus inermis*) and a mixture of weedy species.


H:\project data\Transportation Projects\CDOT\SH58-170\Weeds Management plan\fig 2\_weedLocation.dwg ~ Date: Jun 07, 2002 @ 2:57pm


LEGEND


Herbaceous Species


 Kochia Stand


 Kochia Forb Mix

 Bouncingbet


 Kochia Grass Mix

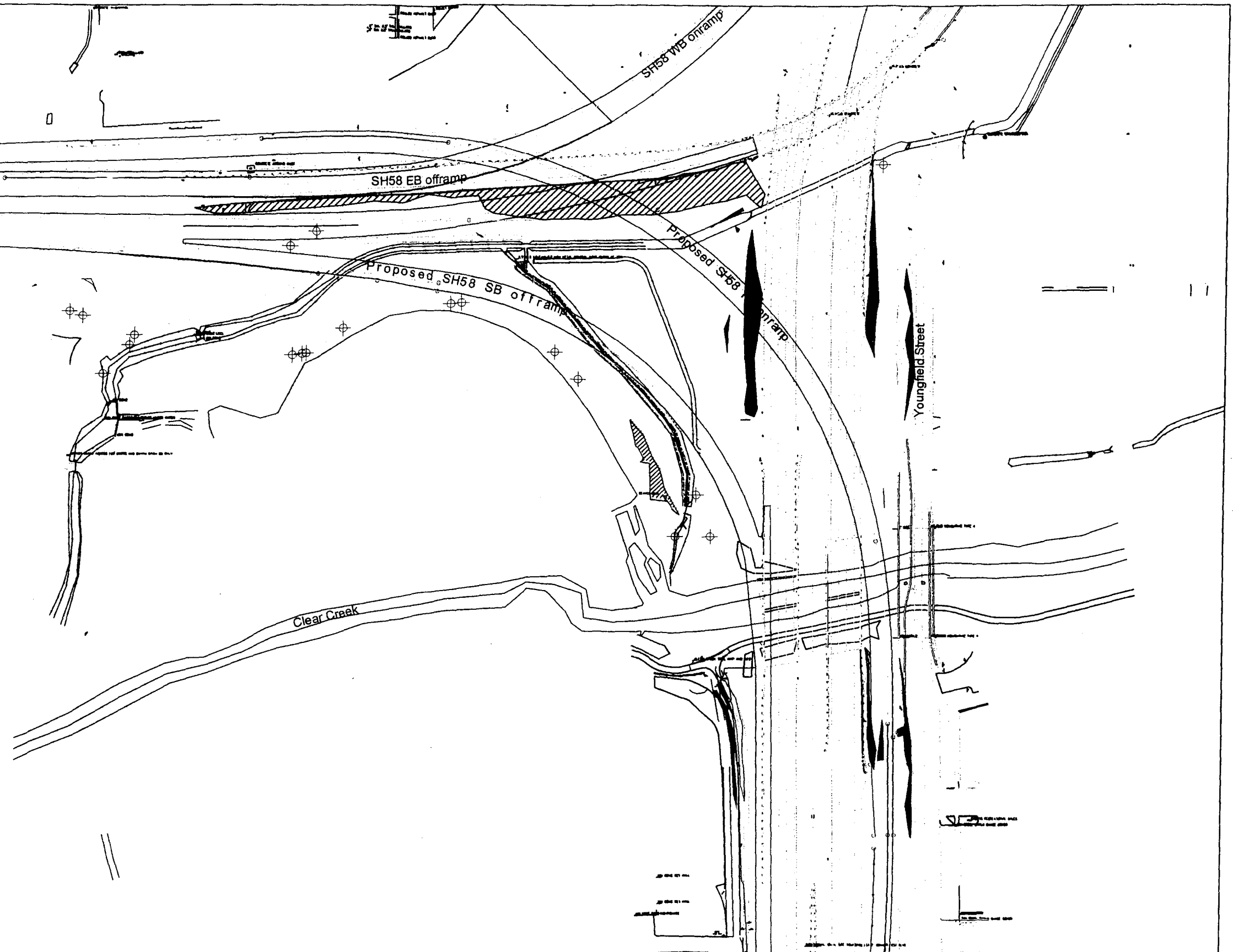
 Cheatgrass

 Teasel

 Field Bindweed

Woody Species

 Russian Olive



I-70 / SH 58 Interchange  
Location of Noxious Weeds  
in Study Area

Figure 2

Scale: 1" = 1250'

Disclaimer: GPS data collected with a Trimble ProXRS  
receiver and accurate to +/- 1 meter.

## 2.2 NOXIOUS WEEDS IN THE STUDY AREA

### 2.2.1 Noxious Weed List

The field survey for the study area yielded 16 state listed noxious weeds or weeds of concern (Table 1). The table identifies both the common name and scientific name of each species. Four species are listed on Colorado's top ten prioritized weed species (Appendix A). Five species are listed on Jeffco's local list of weeds (Appendix B).

### 2.2.2 Mapping

Figure 2 shows the identity and type of noxious weed infestation in terms of size and density, location, and potential threat to existing natural resources/native habitat in the study area (Figure 2).

The prime non-native species requiring management actions are kochia (*Kochia scoparia*), and Russian olive (*Elaeagnus angustifolia*). Kochia is an herbaceous forb that occurs in one large stand along the south side of the SH58 right-of-way and in scattered mixes with other noxious weeds (Figure 2).

Russian olive is a tree species scattered through the study area. Other non-native noxious weeds within the project area include bouncing bet (*Saponaria officinalis*), cheatgrass (*Bromus tectorum*), teasel (*Dipsacus sylvestris*), and field bindweed (*Convolvulus arvensis*). The kochia stand also includes green foxtail (*Setaria viridis*), cheatgrass, and lesser amounts of diffuse knapweed (*Acosta diffusa*) and spotted knapweed (*A. maculosa*). The kochia forb mix includes varying amounts of the knapweeds, Canada thistle (*Cirsium arvense*), common shepherd's purse (*Capsella bursa-pastoris*), houndstongue (*Cynoglossum officinalis*), flixweed (*Descurainia sophia*), redstem filaree (*Erodium cicutarium*), and Russian thistle (*Salsola kali*). Saltcedar (*Tamarix ramosissima*) is present along Clear Creek outside but near the study area. This noxious weed species known to cause high impact in similar riparian habitats and climatic zones, and is among the most invasive alien plants (CNAP, 2000). Saltcedar stands along Clear Creek should be monitored. If they encroach on the project area they should then be controlled.



Table. 1 Noxious Weed Species and Weeds of Concern in the I-70/SH 58 Project Area, Wheat Ridge and Jefferson County, Colorado

Common Name	Scientific Name (Weber and Wittmann 1996)	Top Ten Prioritized Weed Species	Colorado State Noxious Weeds*		Jeffco Noxious Weeds		Potential for Spreading
			State Listed Noxious Weeds	Weeds of Concern	Listed Weeds		
GRASSES AND GRASSLIKE PLANTS							
Cheatgrass	<i>Bromus tectorum</i>		X				high
Green foxtail	<i>Setaria viridis</i>		X				medium
FORBS							
Diffuse knapweed	<i>Acosta diffusa</i>	X	X		X		high
Spotted knapweed	<i>Acosta maculosa</i>		X		X		high
Common shepherd's purse	<i>Capsella bursa-pastoris</i>		X				medium
Canada thistle	<i>Cirsium arvense</i>	X	X		X		high
Field bindweed	<i>Convolvulus arvensis</i>	X	X				high
Houndstongue	<i>Cynoglossum officinalis</i>	X	X		X		high
Flixweed	<i>Descurainia sophia</i>		X				high
Common teasel	<i>Dipsacus sylvestris</i>		X	X	X		medium
Redstem filaree	<i>Erodium cicutarium</i>		X				high
Kochia	<i>Kochia scoparia</i>		X				high
Russian thistle	<i>Salsola kali</i>		X				high
Bouncing bet	<i>Saponaria officinalis</i>		X	X	X		medium
TREES							
Russian olive	<i>Elaeagnus angustifolia</i>		X				high

Note: Plant species were mapped during early spring from March 29 to April 2, 2002. The list of noxious plant species may not include summer and fall flowering species not present during this survey.

\* State of Colorado Noxious Weed List, effective April 1, 2001. Colorado Noxious Weed Act, Title 35, Article 5.5, Colorado Department of Agriculture <http://www.ag.state.co.us>

### **2.2.3 Impacts and Control**

Table 2 ranks the significance of the threat or impact of the mapped species, summarizing the areal extent of each and the feasibility of control.

## **2.3 INTEGRATED WEED MANAGEMENT**

Successful weed management combines the most effective means of control for a noxious weed species and typically utilizes two or more methods of control whether mechanical, cultural, chemical, or biological (Beck, 2001). Regardless of the degree of infestation, effective control depends also on a sound monitoring program, consistently over multiple growing seasons. A summary of integrated weed management practices for each of the major species in the study area follows.

### **2.3.1 Bouncingbet**

Bouncingbet is a perennial herbaceous forb that typically grows in dense colonies and reproduces by seed or rhizomes (Whitson et al., 1996). It can be effectively controlled through preventative measures, mechanical means, and herbicides. The key to control of this species is to minimize disturbance of the root system and prevent seed production by repeated mowing before the plants flower and set seed. For small infestations such as in the study area, this method of control should be sufficient. However, for larger infestations the application of herbicides (picloram, dicamba, or glyphosphate) upon mowing should provide effective control (CNAP, 2000). Once the species is controlled new infestations can be prevented by minimizing disturbance and seed dispersal and production and by maintaining healthy native plant communities (CNAP, 2000).

### **2.3.2 Cheatgrass**

Cheatgrass is a winter annual grass that invades disturbed lands, abandoned fields, and overgrazed rangelands. It is one of the first grasses to emerge in the spring, and upon maturity the grass quickly browns and dries out becoming a fire hazard. It is a prolific seed producer and readily attaches to clothing and animal fur. Control requires minimizing disturbances and maintaining healthy native plant communities. With heavy infestations successful control for the species has required a combination of grazing,

**Table 2. Impacts of Mapped Noxious Weed Species in the Study area.**

Species	Areal Extent of Infestation	Degree of Infestation	Difficulty of Control (Beck, 2001)	Best Means of Control
<b>Grass Species</b>				
1) Kochia stand	0.66 acres	light	easy	cultural mechanical herbicidal
2) Kochia forb mix	0.25 acres	light	easy	cultural mechanical herbicidal
3) Canada thistle	0.25 acres	light	moderate	mechanical herbicidal
4) Diffuse knapweed	0.28 acres	light	moderate	mechanical herbicidal
5) Spotted knapweed	0.28 acres	light	moderate	mechanical herbicidal
6) Houndstongue	0.25 acres	Scattered	easy	cultural mechanical herbicidal
7) Bouncingbet	0.05 acres	scattered	easy	cultural mechanical herbicidal
8) Kochia grass mix	0.03 acres	scattered	easy	cultural mechanical herbicidal
9) Cheatgrass	0.001 acres	scattered	easy	cultural mechanical herbicidal
10) Teasel	0.001 acres	scattered	easy	cultural mechanical
11) Field Bindweed	0.001 acres	scattered	easy	mechanical herbicidal
<b>Woody Species</b>				
8) Russian olive	a few individuals	scattered	easy	mechanical herbicidal

**Definitions**

**\*Degree of infestation (Beck, 2001)**

scattered infestations less than 10 yards in diameter with just a few plants;  
light infestations made up of small patches up to 0.5 to 1 acre in size;  
moderate infestations from 1 to 10 acres; or  
large dense infestations greater than 10 acres.

**\*\*Means of control (Beck, 2001)**

Mechanical: physically disrupts the growth of the weed via tillage, mowing, mulching, burning, and flooding;

Cultural: favors desirable plant growth and includes grazing, irrigating, and vigorous seeding of desirable plant species;

Chemical: use of herbicides, commonly 2,4-D, Tordon 22K (picloram), Curtail (clopyralid plus 2,4-D), Transline (clopyralid), Vanquish/Clarity (dicamba), Telar (chlorsulfuron), and glyphosphate.

Biological: use of an organism such as insects known to disrupt growth or flowering/seeding rates.

herbicidal applications in the spring followed by fall seeding, burning, physical control, and vegetative suppression (Whitson et al., 1996, CNAP, 2000).

### **2.3.3 Field bindweed**

Field bindweed is a long-taprooted herbaceous forb with prostrate twining stems that typically grows in dense mats in fields or climbing along fencelines (Whitson et al., 1996; CNAP, 2000). While it is favored by some wildlife species it is considered one of the world's worst weeds and difficult to control due to its lengthy taproots (FEIS, 1996). It is successfully controlled using a combination of biological (fungal pathogens and insects), mechanical methods such as tillage followed by fall seeding, and herbicidal applications of 2,4-D, dicamba, picloram, or chlorates (FEIS, 1996). Herbicides should be applied during early flowering and when soil moisture is low. Repeated applications are recommended (CNAP, 2000).

### **2.3.4 Kochia**

Kochia is an annual herbaceous forb, 1 to 6 feet tall, and has inconspicuous flowers on much-branched stems (Whitson et al., 1996). It is a prolific, early successional weed and invades waste places, disturbed areas along roadsides, ditchbanks, and a wide variety of native habitats, such as riparian areas, prairies, and shrublands, particularly on saline/alkaline soils. It is favored by livestock, but can be toxic if overgrazed (Whitson et al., 1996). Grazing or mowing alone will not control kochia or stop seed production (FEIS, 1996). Control requires herbicidal applications with dicamba or glyphosphate in the early spring after seedling emergence (CNAP, 2000).

### **2.3.5 Canada Thistle**

Canada thistle is an aggressive, creeping perennial weed that can colonize an area 3 to 6 feet in diameter in one or two years. Infestations usually start on disturbed ground. It can be found in croplands, pastures, rangelands, roadsides, and riparian areas. It can be found in a wide range of soil types, but is best adapted to heavy loam, clay loam, and sandy loams. Optimum soil depth is 20 inches. (CNAP, 2000). It is best controlled by a combination of monthly mowing and herbicides (clopyralid, 2,4-D, or a combination of these). Herbicides are best applied in the late spring as plants are entering the bud stage

or in the fall when roots are actively growing. Herbicides are ineffective under dry soil conditions. Treatment should be repeated for two or more years(CNAP, 2000).

### **2.3.6 Diffuse Knapweed**

Diffuse knapweed is a deep rooted weed that invades disturbed and undisturbed grassland, shrublands, and riparian areas, where it will outcompete native species. It does not tolerate cultivation and is generally not found in cultivated lands or irrigated pastures (CNAP, 2000). Usually diffuse knapweed is found on light, dry, porous soils.

Mechanical treatment by mowing or pulling combined with herbicides (clopyralid, dicamba, 2,4-D, glyphosphate, or a combination of two or more of these) is the recommended treatment (CNAP, 2000).. Mowing should be in the spring before seed set. Mowing should be followed by a fall herbicide treatment. Pulling should be three times annually. First in the spring when the soil is moist, second in June focusing on bolted plants, and third just before seed dispersal. Herbicides should be applied either before the mature plants set seed or to rosettes in the fall. All treated areas should be monitored and new rosettes restored annually. Treated areas should be planted with desirable grass species to help prevent reinfestation (CNAP, 2000).

### **2.3.7 Spotted Knapweed**

Spotted knapweed is a short-lived, rarely biennial perennial forb with a stout taproot. It usually becomes established in disturbed areas, but can then invade adjacent relatively undisturbed areas. The species is highly competitive. It is usually found in well-drained, light to coarse-textured soils that receive summer rainfall. Spotted knapweed is shade intolerant (CNAP, 2000). Treatment is similar to that of diffuse knapweed (CNAP, 2000). Mowing should be performed annually, before flowering. Mowing needs to be performed for several years because seeds can remain dormant in the soil for up to ten years. Pulling should be performed when the soil is moist. Herbicide treatment includes dicamba, 2,4-D, glyphosphate or a combination of these). Herbicides should be applied before mature plants set seed. Treated areas should be planted with desirable grass species to help prevent reinfestation (CNAP, 2000).

### **2.3.8 Houndstongue**

Houndstongue is a biennial or short-lived perennial forb. It usually becomes established on disturbed areas and prefers at least 10 per cent bare ground. It is usually found on gravelly, alkaline soils (CNAP, 2000). It does not compete well with native perennials. Preferred treatment is a combination of herbicides (2,4-D, dicamba, or metsulfuron) and mowing. Herbicides should be applied to first year plants. Adult plants should be mowed during flowering and before seed maturation. Treatment should be repeated for several years, because seeds remain viable for up to three years (CNAP, 2000). Treated areas should be planted with native perennials to help prevent reestablishment (CNAP, 2000).

### **2.3.9 Teasel**

Teasel is a biennial perennial forb that grows up to six feet tall. It is a prickly plant, prolific seed producer and found in a variety of habitats, but typically invades disturbed areas under moist conditions (CNAP, 2000). Small infestations such as those in the project area can be easily managed by preventing the plants from going to seed by either mowing or cutting the stems by hand and bagging the heads to prevent seeds from inadvertently falling to the ground. Larger infestations are best controlled by applying herbicides (metsulfuron or dicamba) (CNAP, 2000).

### **2.3.10 Russian olive**

Russian olive is a thorny, deciduous shrub or small, multi-stemmed tree, generally 4-8 m tall. It has a deep taproot and forms spreading branches that develop into a dense rounded crown (PCA, 1997). It was first introduced as an ornamental and windbreak but has become naturalized and widely established in riparian ecosystems and competing heavily with the native cottonwood-willow communities, especially in areas where soils are sandy and saline/alkaline (Olson and Knopf, 1986). Due to its deep taproot, heavy infestations are difficult to control. Mechanical means alone of cutting are generally not successful because the tree will form root shoots and sucker. The best means of control is to cut the trunks and apply herbicidal applications of 2,4-D to trunks or cut stems (Haber, 1999).

### 3.0 RECOMMENDATIONS

The degree of infestation by noxious weeds in the study area is relatively light and manageable through integrated weed management, which includes prevention of additional infestations during construction. Prevention measures include periodically washing vehicles and tools during construction and working during non-seeding periods to prevent spread by wind, water, or accidental transport on construction vehicles.

During the construction phase, Russian olives can be removed by cutting with chain saws and applying herbicidal treatments directly to cut trunks with backpack applicators and sponges. Careful application of herbicides adjacent to wetlands and water should be done with the use of sponges will prevent accidental polluting of nearby waters and killing of adjacent beneficial plants. Applications should be conducted on windless days when the ground is dry and followed by several days of fair weather. Herbaceous infestations can be controlled by first applying herbicidal treatments during the early spring as plants are emerging followed by a second spot application as necessary, or mowing, if necessary, and phased seeding with native grasses throughout construction. Some herbicides such as Transline and some types of 2,4-D should not be used near water or in areas with high water tables and sandy soils, to prevent contamination of water supplies and aquatic plants. Herbicides such as picloram that are persistent in the soil should not be used in areas that will be reseeded. Application instructions for all herbicides should be reviewed before use to insure that they are appropriate for the location and species being treated. Especial attention should be paid to safe distances for use near water.

Revegetation of disturbed work areas should include replacing exotic trees with native cottonwoods and willows or species appropriate to Foothills shrublands and with native herbaceous grass seed mixes. Any mulches used should be certified weed-free.

Noxious weed management and monitoring in the project area coincidental with land clearing and disturbances or impacts associated with construction of the interchange, along with revegetation with native species will greatly enhance the existing native habitat associated with Clear Creek. Reseeding efforts should be phased throughout construction.



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## Appendix A

### Noxious Weed List, Top Ten Prioritized Species and Weeds of Concern for the State of Colorado (DPI, 2002)

Eighty-two weeds are listed on the state of Colorado's Noxious Weed List.

#### State Noxious Weed List

- 1) Absinth wormwood (*Artemisia absinthium*)
- 2) African rue (*Peganum harmala*)
- 3) Black henbane (*Hyoscyamus niger*)
- 4) Black nightshade (*Solanum nigrum*)
- 5) Blue mustard (*Chorispora tenella*)
- 6) Bouncingbet (*Saponaria officinalis*)
- 7) Bull thistle (*Cirsium vulgare*)
- 8) Camelthorn (*Alhagi pseudalhagi*)
- 9) Canada thistle (*Cirsium arvense*)
- 10) Chicory (*Cichorium intybus*)
- 11) Chinese clematis (*Clematis orientalis*)
- 12) Coast tarweed (*Madia sativa*)
- 13) Common burdock (*Arctium minus*)
- 14) Common crupina (*Crupina vulgaris*)
- 15) Common groundsel (*Senecio vulgaris*)
- 16) Common mullein (*Verbascum thapsus*)
- 17) Common St. Johnswort (*Hypericum perforatum*)
- 18) Common tansy (*Tanacetum vulgare*)
- 19) Common teasel (*Dipsacus fullonum*)
- 20) Cypress spurge (*Euphorbia cyparissias*)
- 21) Dalmatian toadflax, broad-leaved (*Linaria dalmatica*)
- 22) Dalmatian toadflax, narrow-leaved (*Linaria genistifolia*)
- 23) Dame's rocket (*Hesperis matronalis*)
- 24) Diffuse knapweed (*Centaurea diffusa*)
- 25) Downy brome (*Bromus tectorum*)
- 26) Dyer's woad (*Isatis tinctoria*)

- 27) Eurasian watermilfoil (*Myriophyllum spicatum*)
- 28) Field bindweed (*Convolvulus arvensis*)
- 29) Flixweed (*Descurainia sophia*)
- 30) Giant salvinia (*Salvinia molesta*)
- 31) Green foxtail (*Setaria viridis*)
- 32) Hairy nightshade (*Solanum sarrachoides*)
- 33) Halogeton (*Halogeton glomeratus*)
- 34) Hoary cress (*Cardaria draba*)
- 35) Houndstongue (*Cynoglossum officinale*)
- 36) Hydrilla (*Hydrilla hydrilla*)
- 37) Johnsongrass (*Sorghum halepense*)
- 38) Jointed goatgrass (*Aegilops cylindrica*)
- 39) Kochia (*Kochia scoparia*)
- 40) Leafy spurge (*Euphorbia esula*)
- 41) Mayweed chamomile (*Anthemis cotula*)
- 42) Meadow knapweed (*Centaurea pratensis*)
- 43) Mediterranean sage (*Salvia aethiopis*)
- 44) Medusahead rye (*Taeniatherum caput-medusae*)
- 45) Moth mullein (*Verbascum blattaria*)
- 46) Musk thistle (*Carduus nutans*)
- 47) Myrtle spurge (*Euphorbia myrsinites*)
- 48) Orange hawkweed (*Hieracium aurantiacum*)
- 49) Oxeye daisy (*Chrysanthemum leucanthemum*)
- 50) Perennial pepperweed (*Lepidium latifolium*)
- 51) Perennial sowthistle (*Sonchus arvensis*)
- 52) Plumeless thistle (*Carduus acanthoides*)
- 53) Poison hemlock (*Conium maculatum*)
- 54) Puncturevine (*Tribulus terrestris*)
- 55) Purple loosestrife (*Lythrum salicaria*)
- 56) Quackgrass (*Elytrigia repens*)
- 57) Redstem filaree (*Erodium cicutarium*)
- 58) Rush skeletonweed (*Chondrilla juncea*)
- 59) Russian knapweed (*Centaurea repens*)

- 60) Russian olive (*Elaeagnus angustifolia*)
- 61) Russian thistle (*Salsola collina*)
- 62) Saltcedar (*Tamarix ramosissima*)
- 63) Scentless chamomile (*Anthemis arvensis*)
- 64) Scotch thistle (*Onopordum acanthium* and *O. tauricum*)
- 65) Sericea lespedeza (*Lespedeza cuneata*)
- 66) Shepherdspurse (*Capsella bursa-pastoris*)
- 67) Spotted knapweed (*Centaurea maculosa*)
- 68) Spurred anoda (*Anoda cristata*)
- 69) Squarrose knapweed (*Centaurea virgata*)
- 70) Sulfur cinquefoil (*Potentilla recta*)
- 71) Swainsonpea (*Sphaerophysa salsula*)
- 72) Tansy ragwort (*Senecio jacobaea*)
- 73) Velvetleaf (*Abutilon theophrasti*)
- 74) Venice mallow (*Hibiscus trionum*)
- 75) Wild caraway (*Carum carvi*)
- 76) Wild mustard (*Brassica kaber*)
- 77) Wild oats (*Avena fatua*)
- 78) Wild proso millet (*Panicum miliaceum*)
- 79) Yellow foxtail (*Setaria glauca*)
- 80) Yellow nutsedge (*Cyperus esculentus*)
- 81) Yellow starthistle (*Centaurea solstitialis*)
- 82) Yellow toadflax (*Linaria vulgaris*)

The top ten prioritized weeds for the state of Colorado are:

- 1) Canada thistle (*Cirsium arvense*)
- 2) Dalmation toadflax (*Linaria dalmatica* and *L. genistifolia*)
- 3) Diffuse knapweed (*Centaurea diffusa*)
- 4) Field bindweed (*Convolvulus arvensis*)
- 5) Hoary cress (*Cardaria draba*)
- 6) Houndstongue (*Cynoglossum officinalis*)
- 7) Leafy spurge (*Euphorbia esula*)

- 24) Medusahead (*Taeniatherum caput-medusae*)
- 25) Milium (*Milium vernale*)
- 26) Musk thistle (*Carduus nutans*)
- 27) Orange hawkweed (*Hieracium aurantiacum*)
- 28) Ox-eye daisy (*Chrysanthemum leucanthemum*)
- 29) Perennial pepperweed (*Lepidium latifolium*)
- 30) Perennial sowthistle (*Sonchus arvensis*)
- 31) Plumeless thistle (*Carduus acanthoides*)
- 32) Poison hemlock (*Conium maculatum*)
- 33) Puncture vine (*Tribulus terrestris*)
- 34) Quackgrass (*Elytrigia repens*)
- 36) Rush skeletonweed (*Chondrilla juncea*)
- 37) Russian knapweed (*Acroptilon repens*)
- 38) Scentless chamomile (*Maticaria perforata*)
- 39) Mayweed chamomile (*Anthemis cotula*)
- 40) Scotch broom (*Cytisus scoparius*)
- 41) Scotch thistle (*Onopordum acanthium*)
- 42) Sericea lespedeza (*Lespedeza cuneata*)
- 43) Silverleaf nightshade (*Solanum elaeagnifolium*)
- 44) Skeletonleaf bursage (*Ambrosia tomentosa*)
- 45) Sorghum-almum (*Sorghum almum*)
- 46) Spotted knapweed (*Centaurea maculosa*)
- 47) Squarrose knapweed (*Centaurea squarrosa*)
- 48) St. Johnswort (*Hypericum perforatum*)
- 49) Sulfur cinquefoil (*Potentilla recta*)
- 50) Syrian bean caper (*Zygophyllum fabago*)
- 51) Tansy ragwort (*Senecio jacobaea*)
- 52) Toothed spurge (*Euphorbia dentata*)
- 53) Yellow hawkweed (*Hieracium pratense tause*)
- 54) Yellow starthistle (*Centaurea solstitialis*)
- 55) Yellow toadflax (*Linaria vulgaris*)

- 56) Wild proso millet (*Panicum miliaceum*)
- 57) Wild oats (*Avena fatua*)